

ABSTRACT

A method and apparatus for selecting paths to route incoming traffic through a data communication network, which is capable of effectively dispersing the traffic load to the selected paths on the network and effectively optimizing the use of network resources. In a communication network, a plurality of label switched paths between an ingress node and an egress node are provided. Incoming traffic at the ingress node is labeled and delivered through the network to the egress node. In a method and apparatus for selecting paths to route the incoming traffic through the network, a plurality of forwarding equivalent class elements (FEC) of the incoming traffic at the ingress node are allocated for the plurality of label switched paths. The labeled traffic is delivered on the plurality of label switched paths on an FEC-element basis so as to route the labeled traffic through the network to the egress node. The traffic load on the respective label switched paths can be effectively dispersed and the sequence of data packets, sent by the same terminal, may be maintained.